

BENCHMARKS

THE COMPUTING CENTER

NORTH TEXAS STATE UNIVERSITY
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BENCHMARKS

SERVICES AVAILABLE TO USERS OF THE NTSU COMPUTING FACILITIES

The NTSU Computing Center is located in the Information Sciences Building (ISB), Room 119. **Phone Numbers:**

Computing Center: (817) 565-2324; Help Desk: 565-4050; Graphics Lab: 565-3479

Benchmarks Questions/Contributions, Etc - Claudia Lynch

Information & ID-Codes; Disk Space Problems - Carolyn Goodman

Statistical/Research Support - George Morrow, Scott Barber, Claudia Lynch, Rocky Ward, Panu Sittiwong

Academic ADABAS/COM-LETE - T.B.A.

CRSP & COMPUSTAT Problems - Panu Sittiwong

Student Programming Problems - CSCI Dept., GAB Room 542A; BCIS Dept., BA Room 152

JCL Problems; Password & Operating System Problems; Communication/Terminal Problems - Help Desk

Data Entry; Test Scoring & Analysis - Betty Grise

Administrative Applications - Coy Hoggard

Printout Retrieval - RJE Operators

DIALING UP NTSU COMPUTERS OVER THE TELEPHONE

Phone numbers for the Local Area Network (LAN) are:

300/1200 BAUD: (817) 565-3300; 3499

300 BAUD: D/FW METRO 429-6006

1200 BAUD: D/FW METRO 429-9314

The numbers that will accept either 300 or 1200 baud communications have an autobaud feature that requires you to hit the <RETURN> key repeatedly so that the receiving modem can determine the appropriate baud rate. When you have established a communications link, the # prompt will appear on your screen and you can enter one of following CALL commands to connect with the computer of your choice.

CALL 8040 connects with the NAS/8083 (does not support full-screen editing).

CALL 3270 connects with the NAS/8083 through a 3270 protocol converter (supports full-screen editing).

CALL DEC connects with the VAXcluster

CALL 780 connects with the Research VAX

CALL 2000 connects with the HP-2000

NTSU CABLE SYSTEM SCHEDULE

The current configuration of the NTSU cable system is as follows:

Channel 7 - NT Daily. Broadcasts from the NTSU Journalism Department.

Channel 8 - TAGER. Broadcasts go to and from NTSU to other links in this microwave network.

Channel 10 - NTSU Computer System Status Monitor (SSM). Displays the current status of the NAS.

Channel 12 - Sammons Cable. Carries Cable News Network (CNN) unless a special program is requested.

Special broadcasts to and from classrooms can be arranged by the Media Library (565-2484).

HOURS FOR NTSU COMPUTER ACCESS AREAS: SUMMER 1987*

Days	Times	Location
Sunday	2-10 p.m. Noon-Midnight 1:15-8 p.m.	ISB 110 Terminal Area Computing Center RJE GAB 550C
Saturday, Sunday	Noon-11:45 p.m. 1-11 p.m.	College of Business Graphics Lab
Monday	7:00 a.m.-Midnight	Computing Center RJE
Tuesday-Saturday	Open 7 a.m. Tuesday (Open 24 hrs/day)	Computing Center RJE
Monday-Thursday	8 a.m.-10 p.m. 8:15 a.m.-11:45 p.m. 8:15 a.m.-11 p.m. 8 a.m.-11 p.m.	ISB 110 Terminal Area College of Business GAB 550C Graphics Lab
Friday	8 a.m.-10 p.m. 8:15 a.m.-7:45 p.m. 8:15 a.m.-5 p.m. 8 a.m.-6 p.m.	ISB 110 Terminal Area College of Business GAB 550C Graphics Lab
Saturday	9 a.m.-6 p.m. CLOSE Midnight 1:15 p.m.-8 p.m.	ISB 110 Terminal Area Computing Center RJE GAB 550C

*Hours may vary. Check MUSIC/VAX News and/or posted schedules for exceptions.

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NEW POLICIES, PROCEDURES AND OTHER IMPORTANT STUFF

Manager of Academic Computing Resigns

By Claudia Lynch, Benchmarks Editor
(AS04@NTSMUSIC)

Robert G. Brookshire, Manager of Academic Computing Services since 1984, has resigned to take the position of Director of Academic Computing at James Madison University in Harrisonburg, Virginia. Dr. Brookshire joined the Computing Center Staff as a Research Programmer in 1981 and has done much to enhance the research computing environment at NTSU since that time. He has held the position of Assistant Professor of Political Science from 1981 to the present, during which time he has been a member of numerous dissertation committees and taught graduate courses in Research Design and Data Analysis, Multivariate Data Analysis, and Time Series Analysis. Dr. Brookshire has written numerous articles on data analysis and the use of computers for research and he is co-author, with C. Neal Tate of the Political Science faculty and Thomas W. Madron, former Manager of Computer Services here at NTSU, of *Using Microcomputers in Research* (Sage University Paper Series on Quantitative Applications in the Social Sciences, Series No. 07-052, Beverly Hills, CA: Sage Publications). Dr. Brookshire has also been NTSU's Official Representative to the Inter-university Consortium for Political and Social Research (ICPSR) since 1983. We will miss Bob's expertise, humor, and friendship and we wish him success and happiness in his new job. Dave Molta, a Computing Center employee since 1984 and a former Academic Computing Services staff member has been named Acting Manager of Academic Computing.

Academic Database Consultant Resigns

Telka Clem, Academic Database Consultant for the Computing Center since January of 1986, has resigned to move back to her hometown of Texarkana, Texas, where her husband has joined his family's business. Telka plans to continue working, although she is undecided on whether it will be full- or part-time (which would allow her to spend more time with her infant daughter, Amanda.) We wish Telka well and will miss her competence and good nature.

Computing Center Reorganization

The Computing Center has recently reorganized into three major divisions reporting to Richard Harris, the Associate Vice President for Computing. This reorganization took place following Dr. Tom Madron's resignation as Manager of Computer Services.

Dave Molta, Acting Manager of Academic Computing Services, is responsible for all Computing Center instructional and research support services. This includes VAX computer administration and operations, instruction and research software support, the graphics lab, the ISB terminal room, and the newsletter.

Coy Hoggard, Manager of Administrative Information Systems, is responsible for all general and academic administration information systems including office automation.

Steve Minnis, Manager of Computing Services, has overall responsibility for the operating systems and operation of the IBM-compatible NAS/8083 dual processor mainframe, as well as the university-wide broadband data communications network.

The organization chart at the end of this issue provides a detailed look at the way the Computing Center is currently organized, including functional responsibilities for each position.

Renew That UserID!

By Carolyn Goodman, Computing Center Administrative Services

All Academic Individual USERIDs (**NOT** classroom Accounts) currently in use will be active through August 31, 1987. If you haven't renewed your USERID by that time, it will be deactivated. If you do not have a new pink USERID CHANGE FORM (F-020-02) and wish to renew your USERID, they are available in the Computing Center Main Office, ISB 119.

If you have any questions regarding this or other USERID matters, contact me at the Computing Center (565-2324). Don't wait until the last minute to renew your USERID!

Highlights From the Fort Worth MUG

By Philip C. Baczewski, MUSIC/SP Timeshare Coordinator (AC12@NTSMUSIC)

NTSU is fortunate to be a member of the MUSIC Users Group (MUG), an organization which was established to share information and programs between the various institutions that use the MUSIC operating system. The MUSIC Users Group met in Fort Worth May 27, 28, and 29. MUG membership includes over 200 colleges and Universities in The United States and eight foreign countries, all of whom use MUSIC for Academic and/or Administrative computing. MUG-Japan was accepted by MUG-International members to be its first fully-affiliated chapter, consisting of 16 Japanese Colleges and Universities, all using MUSIC to teach various aspects of computing.

The primary topic of discussion at the MUG meeting was the announcement of release 1.2 of MUSIC/SP. This newest release incorporates many important enhancements to the current version running here at NTSU (release 1.1). Shipment of Release 1.2 is

The primary topic of discussion at the MUG meeting was the announcement of release 1.2 of MUSIC/SP . . .

scheduled to begin at the end of June. (NTSU may be able to acquire the new release this summer, however, no schedule has been set yet for installation here.) The following are some of the new features of MUSIC/SP 1.2:

OS simulation has been improved, and includes support for SAS, VSAM, Waterloo Script, Waterloo PASCAL, etc.

Subroutine libraries have been reorganized. MUSIC 1.2 will have three separate libraries (FORT G1, MUSIC, and OS-mode) instead of one (as on the older system). This avoids name conflicts between Fortran G1 and VS Fortran. Additionally, MUSIC 1.2 allows user-defined subroutine libraries.

Support for VSAM datasets has been added to MUSIC 1.2. VSAM is accessible from VS Fortran, VS Cobol, PL/I and VS assembler. Three types of VSAM files are supported: KSDS (key sequence), ESDS (entry sequence), and RRDS (relative record). Up to 10 alternate indexes are possible.

The Editor in MUSIC 1.2 has been enhanced. For reasons of standardization, the Editor has new default PF assignments. The following are common to most IBM interactive operating systems: PF1 = HELP, PF3 = QUIT, PF7 = Page Up, PF8 = Page Down, and PF1-PF12 = PF13-PF24. The recall function will always return last entry made from the COM-

MAND line, and not return commands issued by PF keys. A BROWSE command for read-only edit has been added as well as a STORE command to save a marked group of lines. Commands have been added to be able to ignore or respect case when performing a search or locate, to move the cursor to the end of a line with one keystroke, and to make the current line the center line on the screen. We anticipate that these enhancements will make the MUSIC editor considerably more powerful and flexible.

A MUSIC VIEW command has been added that is similar to the Editor BROWSE command, but also allows unlimited record lengths (80 columns are seen at a time and you can scroll the screen left and right), fast start-up for large files (only part of the file is loaded at start-up), and support for viewing an ASCII file. The VIEW command will be available in full-screen mode only (3270 or PCWS).

VS Fortran support has been improved under MUSIC 1.2. Unit numbers available are 1 to 99 (32 simultaneously open files are possible). There are no longer subroutine name conflicts with Fortran G1 (see above) and subroutines compiled by Fortran G1 can be called by VS Fortran programs.

Minitab version 5.1 has been announced and is specifically written for MUSIC/SP.

MUSIC REXX support has been improved under MUSIC 1.2. REXX can be used to write editor macros and a new EXTRACT command gives REXX access to the Editor data. A new REXLIB command gives access to the /LIB function from REXX.

MUSIC 1.2 supports the latest MVS version of SAS. No modifications to the SAS code are required, and most BASIC procedures have been tested. Some SAS/GRAPH procedures have been tested and work is still in progress on supporting HELP, and user-defined formats. Other SAS products are currently being tested. MUSIC SAS will be available to MUSIC installations as a separate program product.

PCWS (PC Work Station) has been enhanced under MUSIC 1.2. 3270 entry assist has been added (tabs, wordwrap, etc.). PCWS 1.2 also includes VT100 emulation, interfaces with Personal REXX, includes an applications programming interface, uses the PATH command for all file searches, includes new EXEC commands, has an enhanced set-up facility, and has new HELP files which are menu-driven using standard text files on the PC. Because of the additional features of PCWS and its increased use by MUSIC installations throughout the country, IBM will make available a separate PCWS Users Guide.

We anticipate that these enhancements to the MUSIC operating system could have a considerable effect on its power and versatility. The addition of VSAM data-set support will make it possible run business-oriented applications previously unavailable on MUSIC. The new REXX commands will make it possible to add many customized editor features in the form of REXX macros. The enhancements to PCWS will make microcomputer communication to MUSIC easier and more effective. Unfortunately, these enhancements aren't immediately available, but you can be sure that when we begin the MUSIC upgrade process we will keep you fully informed of any changes.

Computing Center Summer II Short Courses

The Computing Center is offering the following short courses for the second summer session. Please pre-register to attend. Only 20 people will be admitted per section. Courses marked with an * require knowledge of the MUSIC Context Editor. THE COMPUTING CENTER RESERVES THE RIGHT TO CANCEL COURSES WITH LESS THAN 5 PEOPLE SIGNED UP.

1. Three separate 2-hour introductory sessions on the MUSIC/SP interactive operating system, using the 3270 Protocol Converter to do FULL-SCREEN EDITING ON MUSIC/SP. To be held in Room 110 of the Science Library (ISB).

Saturday, July 25: 9-11 a.m. Instructor: Rocky Ward

Wednesday, July 29: 6-8 p.m. Instructor: Panu Sittiwong

Thursday, July 30: 1-3 p.m. Instructor: Panu Sittiwong

2. A two-hour session on save Files in SAS and SPSS-X. To be held in the Graphics Lab (ISB).

Monday, August 10: 9-11 a.m. Instructor: Scott Barber

3. A three-hour session on VAX Utilities & Commands. To be held in Room 110 of the Science Library (ISB).

Monday, July 27: 6-9 p.m. Instructor: Ron Brashear

4. A two-hour introductory session on SAS.* To be held in Room 110 of the Science Library (ISB).

Monday, August 3: 1-3 p.m. Instructor: Rocky Ward

5. A two-hour session on using MUSIC/SP Utilities.* To be held in Room 110 of the Science Library (ISB).

Friday, July 31: 9-11 a.m. Instructor: Phillip Baczewski

6. A two-hour introductory session on SPSS-X.* To be held in Room 110 of the Science Library (ISB).

Tuesday, August 4: 1-3 p.m. Instructor: Panu Sittiwong

7. A two-hour introductory session on IBM JCL.* To be held in the Graphics Lab (ISB).

Thursday, July 30: 3-5 p.m. Instructor: George Morrow

8. An introductory session on using CMS (for use with SAS/GRAPH). To be held in the Graphics Lab (ISB). LIMITED TO FACULTY AND GRADUATE STUDENTS -- MUST HAVE A CMS ID-CODE.

Tuesday, August 4: 1-3 p.m. Instructor: Philip Baczewski

9. An introductory on using SAS/GRAPH. To be held in the Graphics Lab (ISB). [Must be familiar with CMS to attend -- see #8 above]

Wednesday, August 5: 1-3 p.m. Instructor: Panu Sittiwong

10. Electronic Mail on the Vax. To be held in Room 110 of the Science Library.

Thursday, August 6: 9-11 a.m. Instructor: Ron Brashear

MICROCOMPUTERS

KERMIT, A File Transfer Protocol

By Scott Barber (AC10@NTSMUSIC) and Philip C. Baczewski (AC12@NTSMUSIC), Academic Computing Staff

Introduction

Kermit is a protocol for error-free file transfer between computers. Over the years, versions of software sup-

porting Kermit have been written for almost every mainframe, mini-, and micro-computer operating system in common use. Several of the multi-user systems at NTSU are equipped with versions of Kermit, potentially allowing file transfer with virtually any microcomputer connected to them.

Data and other information is passed back and forth in small units called packets. Each packet has a specific

format which includes error-checking data to help insure that the transfer is correct. Files to be transferred may have a fixed or variable record format, and the logical record length may be up to 256 characters long.

Presently, MUSIC-Kermit can transfer only character data. Binary files will not be transferred correctly to and from the MUSIC system. On the VAX systems, both text and binary files can be transferred, but a parameter must be set on the VAX Kermit to accommodate the file format.

Getting started

The following are examples of good parameter settings for use with MUSIC and CMS Kermits on the IBM-compatible mainframe and the VAX systems (including the Research VAX).

IBM Kermit	VAX Kermit
SET LOCAL ON	SET LOCAL OFF
SET BAUD 9600	SET BAUD 9600
SET PARITY EVEN	SET PARITY NONE
SET HEATH ON	SET HEATH OFF
SET EOF CTRL-Z	SET EOF CTRL-Z
SET REC PACK 90	SET REC PACK 94
SET SEND PACK 90	SET SEND PACK 94
SET FLOW XON	SET FLOW XON

With some versions of Kermit, you can store PC-Kermit parameter settings in an ASCII text file on the PC and call the file after loading Kermit on the PC with the TAKE command. If you want to use both MUSIC and the VAX systems for file transfer, you could set up two different files with each containing the parameter values specific to each. (If you have Kermit in a hard disk sub-directory, you must use the full path specification. e.g.

TAKE \COMM\KERMIT\BMPARMS)

The default values of the parameters on the NTSU host systems will work fine with the following exceptions:

On MUSIC and CMS, enter **SET PACKET 90**.

This will take care of both uploading and downloading.

On the VAX cluster, enter **SET FILE TYPE BINARY** (if you want to transfer a non-text file)

NOTE: Users of the Research VAX should enter **KERMIT R** on the host machine to upload a file and enter **KERMIT S** to download. Typing **KERMIT ?** will display the syntax of the KERMIT command.

For more information about Kermit, on both MUSIC and on the VAX you can type **HELP KERMIT**. Also, typing **HELP** while executing Kermit will provide

reference information on the Kermit commands and parameters. Please consult the table on the following page for a summary of Kermit execution. Anyone who wishes more detailed information on Kermit should consult Kermit - A file Transfer Protocol by Frank da Cruz and published by Digital Press.

Status Report for Office Automation Classes

By Sandy Franklin, Office Automation Specialist

Editors Note: This article originally appeared in the May issue of **Benchmarks**, however the number of classes was omitted.

In the Computer Training Lab and Information Center located in Marquis Hall, Room 105, the following classes were taught during the months of January through April 1987 to interested faculty and staff members.

- Introduction to WordStar - 4 classes
- MailMerge with WordStar - 2 classes
- Advanced WordStar - 2 classes
- Introduction to WordPerfect - 21 classes
- Introduction to Micros - 8 classes
- SIMS Training - 10 classes
- Introduction to Lotus Spreadsheet - 5 classes
- Lotus Database/Graphics - 3 classes

Exporting Your SPSS^X Dataset to SPSS/PC +

By Panu Sittiwong, Academic Computing Staff
(AC09@NTSMUSIC)

With the availability of the SPSS/PC+ software for the IBM XT and compatible PCs, you can now analyze your research data with it. One thing you may want to do is to use an SPSS^X system dataset which is already stored on the mainframe. SPSS^X provides a procedure which allows you to export the mainframe dataset to SPSS/PC+.

The procedure is divided into three steps. The first step is to execute an SPSSX job to run the EXPORT procedure. The following shows the appropriate SPSS^X setup.

```
//INCLUDE OSJE
SYSTEM='OS',RETURN
//id JOB (id,05,1,9999),'Name',PASSWORD=mvspw
// EXEC SPSSX
//DATAIN DD DSN=USER.id.spssx.data,UNIT=SYSDA,
// VOL=SER=ACADnn,DISP=(OLD,KEEP)
//TOPC DD SYSOUT=B
GET FILE=DATAIN
EXPORT OUTFILE=TOPC
EXECUTE
```

NOTE: You should substitute all lowercase characters in the example above with the appropriate information.

After this job is submitted to OS/MVS you can get the exported file from OSJR. From the MUSIC *Go mode, type **OSJR**. When the job is ready for MUSIC, type:

OUT D=PUN,FILE=musicfilename

This command will copy the output to a MUSIC file. Finally, you can download this file to your PC using communication software such as PCWS or Procomm. If your PC is not capable of downloading a file from MUSIC, contact the Computing Center at 565-2324 for assistance.

The exported file can be retrieved from within SPSS/PC+ with the command

IMPORT FILE='filename'.

EXPORT files are similar to standard SPSS^X system files in the sense that they contain variable formats, value and variable labels, and the results of any data transformations prior to the "EXPORT" command. The difference is that they are portable ASCII files which can be transferred from the mainframe to microcomputers. For more information about options available for and characteristics of EXPORT files, see the SPSS^X User's Guide, 2nd ed. pp. 293-96.

Execution of Kermit Protocol

System	Action	Comments
PC	A. Execute KERMIT.	Depending upon the version of Kermit you have, the filename to execute will vary.
PC-Kermit	B. TAKE filespec	Remember to include the full DOS pathname. (Some versions of Kermit do not support this command.)
	C. CONNECT	Command to initiate a terminal session with the host
Host	D. At the # sign, set ECHO OFF	Kermit will display the characters when signed onto the IBM line mode.
	E. Sign on to the host	On MUSIC, sign on as TTY terminal (e.g. /ID ID00;TTY)
	F. KERMIT	Loads host Kermit
Host-Kermit	G. Set host options	Refer to above list.
	H. Enter a Kermit transfer command at Kermit prompt.	
	RECEIVE <filename>	Receive a file and store it under the name "filename". (useful if you have a file with the same name on the host)
	SEND FILENAME	Send a MUSIC file to the PC.
	I. Return to PC-Kermit.	Most versions of Kermit use the following escape sequence to Return to the PC-Kermit: <CTRL> [C (this sequence can usually be changed.)
PC-Kermit	J. Enter the corresponding local transfer command.	
	RECEIVE <filename>	Receive a file from the host.
	SEND FILENAME	Send a PC file to the host. (The file must be in the same MS-DOS directory as Kermit; the full pathname is not necessary.)
	K. Wait for the file to be transferred!	Don't worry if it doesn't begin immediately. Sometimes it takes 10-15 seconds to get going.
	L. CONNECT	Re-establish terminal communications
Host-Kermit	M. If more files are to be sent or received, Step H.	
	N. EXIT	Stop host Kermit execution
Host	O. Sign off of host.	Don't forget to close your LAN session!
	P. Return to PC-Kermit.	
PC-Kermit	Q. EXIT	Stop PC-Kermit execution

VAXEN

Net-Mailer

By Billy Barron (BILLY@NTSUVAX)

Net-Mailer is an interface between VAXmail and other mail networks, such as ARPAnet and UUCP. Net-Mailer does the same job as GMAIL, but is much more easy to use. Every user may customize the behaviour of Net-Mailer, he may add a personal signature, may use a names file, add additional gateways or have his outgoing BITNET mail rerouted through a mailer.

You may use Net-Mailer by simply specifying a protocol of **BITNET** for the To-Address field. If you already have received mail, then the sender's address will probably show up in the From-Address field of MAIL. You then simply type **REPLY** in MAIL. For example:

```
$MAIL TESTFILE/SUBJECT="This is a test" To:
BITNET%"zrgc001@dtuzdv5a.bitnet"
```

This will route your mail contained in file TESTFILE to user ZRGC001 at node DTUZDV5A in BITNET. To facilitate REPLY in MAIL several other protocols have also been defined.

```
$MAIL MAIL SEND To:
UUCP%"sysadm@ntvax.uucp"
```

This would send the message to the user SYSADM of the node NTVAX of the UUCP network. This is the

Research VAX. If you wish to send MAIL to a user on the Research VAX, just replace SYSADM (system administrator) with the Username you wish. If you need assistance on figuring out an address, please send MAIL to OPERATOR describing your difficulty. More information can be obtained by typing **HELP NET-MAILER** from the \$ or MAIL prompts.

Net-Mailer is copyrighted by Christoph D. Gatzka (Address: zrpc001@dtuzdv5a.bitnet).

NTSUVAX Bitnet Address

By Billy Barron, VAX Operator (BILLY@NTSUVAX)

All outgoing MAIL from the VAXcluster is now addressed with the node name NTSUVAX instead of NTSUVAXA and NTSUVAXB. Mail can be sent to you at the node name NTSUVAX. It is suggested that you use the node name NTSUVAX instead of NTSUVAXA or NTSUVAXB for your BITNET mail. For example, if your userid is ID78, your Bitnet Address would be: ID78@NTSUVAX

If you need any more information on this, send MAIL to OPERATOR. General information on BITNET can be obtained by typing **HELP BITNET** and/or **HELP JNET**.

OPERATIONS

Disk Backup Schedules

Backup Schedule for OS/MVS

OS/MVS disk packs (academic and administrative) are backed up daily, Tuesday through Saturday, from 4-6:30 a.m., and Sunday from Midnight to 3 a.m. A backup of all the operating systems on the NAS CPU and their contents is done once every two weeks at some low activity period over a weekend.

MUSIC/SP Backup Hours

A message will be sent to all users signed on to MUSIC/SP approximately 10 minutes before backups are begun. It will be in the form * * MUSIC SHUT DOWN AT xxxx AM - SCHEDULED BACKUP **. To find out the backup hours while signed on to MUSIC/SP, enter HELP HOURS. The following backup schedule is currently in effect:

Tuesday 3 a.m. (for about 3 hours) Weekly backup
 Wednesday - Saturday 4 a.m. (for about 2 hours) Daily backup
 Saturday Midnight (for about 2 hours) Daily backup

PHOENIX Backup Schedule

PHOENIX is backed up weekly on Sunday night. The backup begins at midnight and lasts for approximately 30 minutes.

VAX Backup Schedule

Incremental backups of both VAX systems are performed Monday through Friday at 6 p.m. Users do not have to log-off, but any files that are open at the time of the backup will NOT be backed up.

Full backups of both systems are done every Friday beginning at 8 a.m. These generally will take all day to complete. Again, users do not have to log-off, but any files that are open will not be backed up.

A "Stand Alone" backup of the system disk is done once every two months. This procedure makes a copy of the system disk that can be used to restore its contents if the disk is completely destroyed. The system will be shut down; watch the system log-on message for specific times and dates.

NOTE: No backups are taken on the weekends. Requests for restoration of files should be made via MAIL to the username **OPERATOR**. Your file can only be restored if it existed before the last backup was done.

NAS/8083 Dual Processor Performance Statistics for May

CPU	SYSTEM	Scheduled Operating Hours	Planned Maintenance Hours	Planned Production Hours	Unplanned Maintenance Hours	Production Hours Achieved	System Uptime
ACAD	VM/SP3	744	0.00	744.00	17.63	726.37	97.6%
ACAD	MUSIC/SP	744	35.23	708.77	20.17	688.60	97.2
ACAD	MVS/JES2	744	0.00	744.00	21.39	722.61	97.1
ACAD	COMPLETA	744	0.00	744.00	22.71	721.29	96.9
ADMN	MVS/JES2	744	0.00	744.00	4.64	739.36	99.4
ADMN	COMPLETA	265	0.00	265.00	3.84	261.16	98.6
MN	ADABASA	744	21.93	722.07	7.62	714.45	98.9

System Uptime = (Production Hours Achieved)/(Planned Production Hours)

Production Hours Achieved = (Planned Production) - (Unplanned Maintenance)

Scheduled Operating Hours = (Planned Maintenance) + (Planned Production)

MUSIC/SP Planned Maintenance Hours include 24.31 hours for system backup and 10.92 hours for VM/SP3 system backup.

ADABASA'S Planned Maintenance Hours include 21.93 hours for system backup.

The ACAD CPU achieved 98.1% uptime; the NAS/7360 DASD achieved 100% uptime; the NAS/7380 DASD achieved 100% uptime. The ADMN CPU achieved 100% uptime; the NAS/7360 DASD achieved 100% uptime; the NAS/7380 DASD achieved 100% uptime.

Lost productivity is calculated as the greatest amount of elapsed time that any one of the production systems was unavailable for scheduled operation. Lost productivity hours were contributed to by the following key causes ->

ACAD CPU:

CPU, Tape and Disk Subsystems (NAS)

1. Service processor failing to read floppy disk. 15.96 HOURS

Miscellaneous

1. Undetermined causes for systems restarts. 5.78
 2. MVS/JES2 System Tuning/Improvements. 1.97
- TOTAL 7.75 HOURS
 GRAND TOTAL FOR ACAD 23.71 HOURS

ADMN CPU:

Miscellaneous

1. BYMPX Channel 0 failures as result of power failures in the ISB during thunderstorms. 4.63 HOURS
 2. MVS/JES2 system tuning/improvements. 0.62
 3. COMPLETA weekly DASD backup failure. 2.37
 4. COMPLETA system tuning/improvements. 0.57
 5. COMPLETA system down to process single jobs. 1.63
- TOTAL 9.82 HOURS
 GRAND TOTAL 9.82 HOURS

TECHNICAL SUPPORT

ACADemic (NAS) Program Hit Parade*

The following programs were used the most frequently on the NAS CPU during the months of May and June. Note that, as of the March "Program Hit Parade," the Other category has been omitted. Each program is now considered as a separate entity.

MAY TOP TEN PROGRAMS : FREQUENCY OF RUNS

Program	Description	Number of Runs	Percent of Total
1. IKFCBL00	VS COBOL Compiler	23265	16.5
2. PGM=*DD	Compiled Program	22112	15.7
3. IEWL	Linkage Editor	21741	15.4
4. IEBPTPCH	IBM List Utility	15881	11.3
5. IEBGENER	IBM Utility	10852	7.7
6. IEFBR14	IBM Null Utility	9290	6.6
7. IDCAMS	VSAM Utility	7663	5.4
8. CSMA001	Sort Utility	4949	3.5
9. SCRIPT	Waterloo/SCRIPT	4831	3.4
10. SASLPA	SAS	4485	3.2

MAY TOP TEN PROGRAMS: CPU SECONDS USED

Program	Description	CPU Seconds	Percent of Total
1. SASLPA	SAS	61035	32.9
2. PGM=*DD	Compiled Program	43308	23.2
3. IKFCBL00	VS COBOL Compiler	23551	12.7
4. SPSSX	SPSSX	9950	5.4
5. SCRIPT	Waterloo/SCRIPT	9928	5.4
6. IEWL	Linkage Editor	3924	2.1
7. IDCAMS	VSAM Utility	3397	1.8
8. PTPCH	Dataset Lister	2587	1.4
9. IEBPTPCH	IBM List Utility	2423	1.3
10. GIMSMP	MVS Maintenance Utility	2239	1.2

JUNE TOP TEN PROGRAMS : FREQUENCY OF RUNS

Program	Description	Number of Runs	Percent of Total
1. IEWL	Linkage Editor	5484	14.9
2. PGM=*DD	Compiled Program	5454	14.8
3. SASLPA	SAS	5136	14.0
4. IKFCBL00	VS COBOL Compiler	4696	12.8
5. SCRIPT	Waterloo/SCRIPT	3293	9.0
6. IEBGENER	IBM Utility	2911	7.9
7. SPSSX	SPSSX	2596	7.1
8. PTPCH	Dataset Lister	1329	3.6
9. IKJEFT01	Password Change	868	2.4
10. IEFBR14	IBM Null Utility	862	2.3

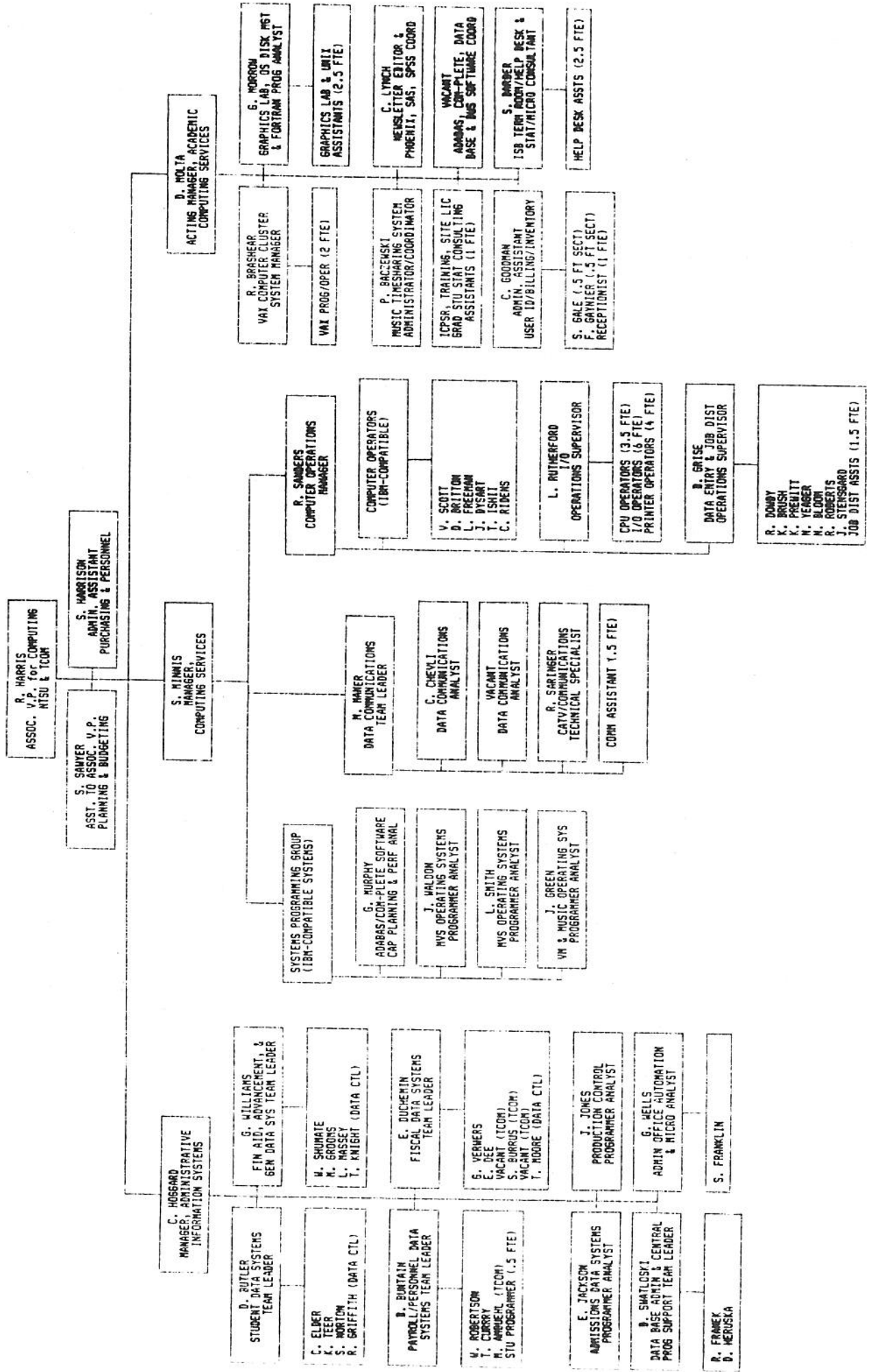
JUNE TOP TEN PROGRAMS: CPU SECONDS USED

Program	Description	CPU Seconds	Percent of Total
1. SASLPA	SAS	104945	64.4
2. SPSSX	SPSSX	21420	13.2
3. SCRIPT	Waterloo/SCRIPT	9076	5.6
4. IKFCBL00	VS COBOL Compiler	58991	3.6
5. PGM=*DD	Compiled Program	5051	3.1
6. PTPCH	Dataset Lister	2308	1.4
7. ISTINM01	VTAM Utility	1860	1.1
8. IEWL	Linkage Editor	1189	0.7
9. FDR	MVS Backup Utility	928	0.6
10. IEBGENER	IBM Utility	824	0.5

*ACAD is the official designation of the part of the NAS/8083 CPU that is dedicated to faculty and student use. The portion of the computer reserved for University administrative purposes is termed ADMN.

COMPUTING CENTER ORGANIZATION CHART

7/22/87



Registration Form for Computing Center Short Courses

Please complete this form and return it AS SOON AS POSSIBLE if you wish to attend any of the short courses listed below. You may also register over the phone by calling 565-2324.

NAME: _____ PHONE: _____

DEPT: _____ CLASSIFICATION: _____

I wish to attend:

• Introduction to MUSIC/SP:

___ Saturday, July 25 : 9-11 a.m. (ISB 110)

___ Wednesday, July 29 : 6-8 p.m. (ISB 110)

___ Thursday, July 30 : 1-3 p.m. (ISB 110)

• System Files in SAS & SPSS-X:

___ Monday, August 10 : 9-11 a.m. (Graphics Lab, ISB)

• VAX Utilities & Commands:

___ Monday, July 27 : 6-9 p.m. (ISB 110)

• Introduction to SAS:

___ Monday, August 3 : 1-3 p.m. (ISB 110)

• Using MUSIC/SP Utilities:

___ Friday, July 31 : 9-11 a.m. (ISB 110)

• Introduction to SPSS-X:

___ Tuesday, August 4 : 1-3 p.m. (ISB 110)

• Introduction to IBM JCL:

___ Thursday, July 30 : 3-5 p.m. (Graphics Lab, ISB)

• Introduction to CMS:

___ Tuesday, August 4 : 1-3 p.m. (Graphics Lab, ISB)

• Introduction to SAS/GRAPH:

___ Wednesday, August 5 : 1-3 p.m. (Graphics Lab, ISB)

• Electronic Mail on the VAX:

___ Thursday, August 6 : 9-11 a.m. (ISB 110)

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